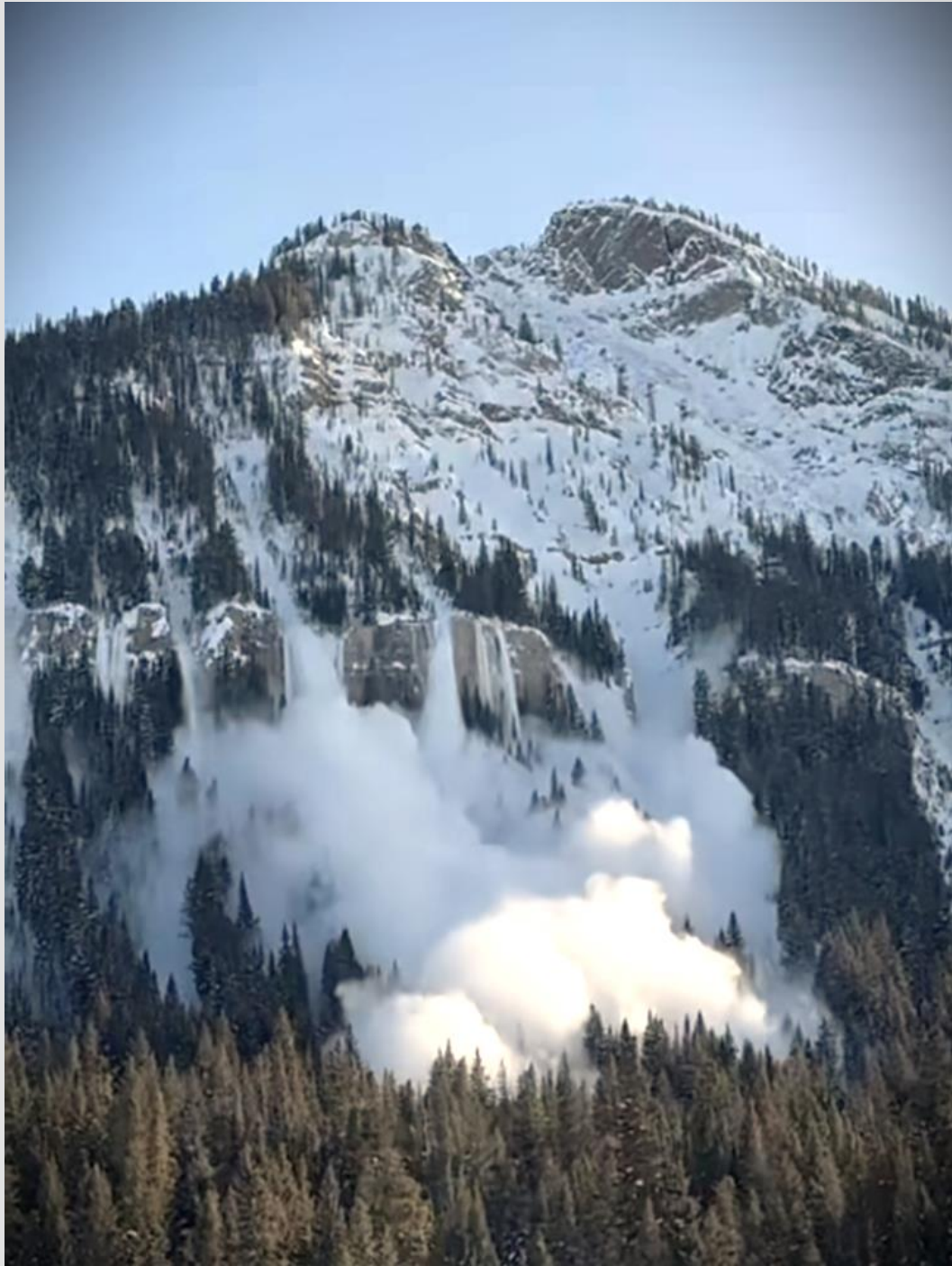


2023-24 Annual Report



Gallatin National Forest **AVALANCHE CENTER**

HIGHLINE PARTNERS

SPARK R&D

BASECAMP GALLATIN

ALPINE YAMAHA

YELLOWSTONE CLUB COMMUNITY FOUNDATION

GALLATIN COUNTY SEARCH AND RESCUE

MONTANA STATE PARKS

World Boards

Mystery Ranch

Cooke City Super 8

Avalanche Alliance

Idaho State Snowmobile Association

Klim

Uphill Pursuits

Bozeman Ice Festival

Alpine Orthopedics

Stronghold Fabrication

Gallatin Valley Snowmobile Association

Community Food Co-op

Cooke City Motorsports

Knoff Group Real Estate

Community Food Co-op

Montana Backcountry Alliance

Upper Yellowstone Snowmo Club

Werner Wealth Management

Advanced Innovation

Bridger Bowl

Beartooth Powder Guides

Yellowstone Ski Tours

Chad Bunting-Edward Jones

Bozeman Splitfest

Advanced Innovation

Ride Rasmussen Style

BWAGs

GNFAC Staff: Doug Chabot, Alex Marienthal, Ian Hoyer and Dave Zinn

Cover: Natural avalanche on the N. side of Republic Mountain (3/9). Photo: M. Simone



2023-2024 Annual Report Gallatin National Forest Avalanche Center

April 15, 2024

We just ended our 34th year of operation. This winter was challenging on several fronts, with an unusually late start to the season and a persistent weak layer that created unprecedented instability. We had many days of avalanche warnings, weeks with avalanches occurring daily, and a scary number of avalanches that people triggered far away from the starting zones. This winter, we had 51 incidents reported, which resulted in 17 people caught or carried, with 9 partial burials and 3 injuries. Thankfully, no one was killed in an avalanche.

We started daily advisories on December 7th, and the snow height for the next month of field days was 1-1.5 feet, barely enough to ski or sled. Snow in mid-January helped the depth but brought an onslaught of avalanche activity. At the end of January, Doug wrote, *"This year is unique in my 29 years of avalanche forecasting in southwest Montana. Large avalanches are being triggered from hundreds of feet away long after the most recent snowfall. Even a few inches of new snow are causing us to elevate the danger. This is not like other seasons, and it's making our entire forecasting team nervous. We are recalibrating our risk and notching back our travel plans due to a great deal of uncertainty about what it will take for things to become more stable."*

Our messaging for most of the winter was simple: stay out of avalanche terrain. And we had lots of evidence. Our forecasting team and backcountry travelers saw and triggered many avalanches with day-after-day activity. The danger and risk were obvious. From January 8 to March 8, the danger was rated Considerable or High every day in the southern ranges of the advisory area. We issued 10 early season bulletins and 130 daily forecasts, which ended on April 14th, and we gave bi-weekly updates through April.

Our team of avalanche specialists, including Alex Marienthal, Ian Hoyer, Dave Zinn and Doug Chabot, dug pits, made movies, investigated avalanches, wrote forecasts and taught classes. This season, our intern, Zach Peterson, crushed it as our field partner and digital organizer. He is a professional ski guide, snowmobiler, mechanic, trail breaker and hard worker. Every evening, he uploaded the day's public observations, which was a substantial task.

The Friends of the Avalanche Center and the GNFAC worked together to teach avalanche classes. Shannon Regan, Education Coordinator, worked tirelessly through the season to offer classes. This was no small feat, given the lack of snow in December and January, which is when the bulk of our education efforts occur. In total, the Friends' 45 instructors offered 95 classes to 4,876 people, including 701 youth and 802 snowmobilers.

On Tuesday, April 9th, Doug Chabot wrote his final avalanche forecast for the Gallatin National Forest Avalanche Center. Doug, thank you for your friendship, mentorship and 29 years of service to Southwest Montana's community. Congratulations on your retirement!

GNFAC INDEX

- Number of avalanche forecasts to field days: 130:128
 - Number of snowpits we recorded in SnowPilot.org: 93
- Number of observations submitted by the public and forecasters this season: 697
- Number of days with an Avalanche Warning: 21, the most ever
- Approximate percentage of median snow water equivalent on Dec 1 and April 14: 50% and 75%
 - What this means in English: The season started bleak, stayed bleak, and the latest storms brought the snowpack to $\frac{3}{4}$ of normal, which is still near record lows.
- Number of flat tires, broken a-arms, broken forecasters: 0
 - Last time this occurred: never.
- Reported avalanches: 462
 - Number of these that were remotely triggered: 72 or 15%
 - Number of mountain goats caught and partially buried: 1 at Big Sky...no reported injury!
- Number of failed attempts to summit The Throne (a pimple of a hill) in the Bridger Range: 3
 - Reasons for failure: It was too dangerous, and we were scared.
- Total avalanche deaths since the start of the avalanche center in 1990: 57
 - 8 Seasons without fatalities: 23-24; 19-20; 12-13; 03-04; 98-99; 96-97; 94-95; 90-91
- Days Doug shouldered his skis and walked down the slope because skiing was so grim: 1
 - His partner that day, who assured him it would be “reasonable” skiing: Dave (who maintains to this day that it was indeed reasonable).
- Number of videos and total views: 138 and 2,634,391 views (1.3 million views more than last year!)
- Total followers on Instagram, Facebook, YouTube, and Twitter: 24,400; 19,000; 8,290; and 2,347

THIS WINTER
5,884 PEOPLE A
DAY RECEIVED
OUR AVALANCHE
ADVISORY.



AVALANCHE FORECASTS

Our avalanche forecasts give current and relevant information so people can make good decisions in the backcountry. Last winter we issued 130 advisories that reached 5,884 people a day, mostly through email. We also wrote 10 pre-season avalanche bulletins and will issue 5 post-season. We rely on field days, observations from the public and use photos and videos to help demonstrate the danger of the day.

The official forecast gets posted and emailed every morning at 7:30 a.m., but those that follow us on social media get a teaser of the next day's forecast by watching our afternoon field videos on Instagram, Facebook and YouTube.

FIELD DAYS

Getting out in the field is critical to our operation. "To know there, go there" are words we live by. This season we had 128 field days digging and recording pits (93) and investigating avalanches. We do not go in the field solo. We go out with each other, our intern, or from a select group of volunteers. Where we go changes year-to-year since we follow the most unstable snows effecting the most popular recreation sites.

MTAVALANCHE.COM

Our website is an online portal to all things avalanche related. Weather, education, forecasts, snowpits, avalanche activity, articles, pictures and videos are easy to navigate. Anyone planning a day in the backcountry can click on a Regional Page for a specific mountain range and get valuable trip planning resources.

VIDEOS

We created 138 videos this winter that were watched 2,634,391 times on YouTube, Facebook and Instagram. This is an astounding 1.3 million more views than last year, most of it on IG. Most days we would film a 1-minute clip about our avalanche concerns and post it that same afternoon. By evening hundreds would have seen it. While reading the morning advisory is chock full of useful information, an person could instead watch all our videos and understand the region's snowpack stability.

YOUTUBE, INSTAGRAM, FACEBOOK AND TWITTER

We post videos every afternoon and use social media to advertise education programs, plug the avalanche danger and inform people of recent avalanche

activity. The number of likes and followers increased this year with 24,400 Instagram followers, 19,000 on Facebook, 8,290 subscribing on YouTube, and 2,347 on Twitter.

AVALANCHE INCIDENTS AND ACTIVITY

This season was rare and we had no avalanche fatalities in our forecast area. Nationally, 16 people died in avalanches this season, a welcome decrease from the 10-year average of 27.

The instability was the worst we've ever seen in the history of the GNFAAC. There were many avalanches triggered, some from a far distance away, a wicked sign of instability. We only hear of a fraction of all the avalanches, yet the more serious ones resulting in burials, injury typically get reported.

- 51 avalanches were unintentionally triggered by skiers and snowboarders that resulted in 17 being caught, 3 getting injured and 9 partially buried.

FRIENDS OF GNFAAC EDUCATION PROGRAM SEASON SUMMARY 2023-24

WE TAUGHT 95
CLASSES TO
4,867
PARTICIPANTS.

A note from the Education Coordinator:

I want to thank all the Friends of the GNFAAC board, staff, students, community, and business partners for contributing to a great education season. Friends of GNFAAC would not be able to accomplish this amount of programming without you. This season presented challenges with low (sometimes no) snow at venues, especially in December and January, typically the busiest months of the teaching season. The Friends of GNFAAC program had to be flexible and continued to operate with lower enrollment in field-based courses. I am particularly proud that we were able to increase the number of youth programs taught and saw an increase in motorized outreach and education this season from last year. Below you can find the numbers at a glance, program successes, and a look to the next season and beyond!

Shannon Regan

Season Totals:

- We taught avalanche awareness to 4867 students at 95 unique events
 - 701 youth under 18
 - 802 snowmobilers



- Our Avalanche Fundamentals Course ran 14 field days in Bozeman, West Yellowstone, and Big Sky for 444 students!
 - Unfortunately, due to low snow, low enrollment, and hazardous weather, we canceled several field days on the calendar this season.
- 45 instructors taught lectures, field days, rescue courses, school programs, and outreach days across Southwest Montana
 - Nine new staff (4 ski based, 4 hybrid-motorized, 1 motorized). Many new staff stepped in this season to fill gaps in Cooke City outreach programs.

Successes:

- This winter started with exceptionally low snow, but we still maintained many of our programs and ran new offerings despite the challenging conditions. Operations ran from October to March. Often, the Friends group had events every day of the week and multiple overlapping events. Teaching this volume of programs would not be possible without amazing staff!
- The Friends of GNFAAC ran our 7th annual staff training and biannual WFR-R/WFA course for staff in November 2023.
 - Thanks, Dave Zinn and Hannah Claiborne with AERIE Medicine. It's so valuable to get to practice wilderness medicine scenarios as a staff member.
 - The training highlighted program background, scheduling, and a fun avalanche rescue update quiz from Alexis Alloway.
- We increased the number of school programs offered from 2023 and trained many new staff to teach these programs. Teaching avalanche safety at the 6th-grade level takes creativity and willingness to try new things.
- This season, the Friends of the GNFAAC partnered with the Bridger Teton Avalanche Center to teach a weekend awareness program in Cody, Wyoming, with the Cody Country Snowmobile Club and Wyoming Snowmobile Association. Many of the motorized users in Cody recreate on the CGNF, and we hope this great partnership continues!
- The Friends of the GNFAAC trained Search and Rescue groups using redesigned course material from Alexis Alloway. This season, we taught groups from

Gallatin County, Park County, Red Lodge (Carbon), Stillwater County, and Fremont County (ID).

- We continued weekly in-person Cooke City avalanche awareness and conditions updates due to strong partnerships with UYSC, Antler’s Lodge, and Beartooth Powder Guides.
 - Friends of GNFAC ran 12 weekends of programming in Cooke City, with over 400 participants between evening lectures, Saturday outreach at Round Lake Safety Shelter, and private group talks at the Super 8 and the Antler’s Lodge.
 - Added rescue skills and avalanche awareness content to the Octane and Grit Ladies Ride clinics 2/1-2/4.
- Friends of GNFAC continued running great events with partners like Bridger Bowl, MAP Brewing, Spark R and D, City of Bozeman, MSU, UYSC, Uphill Pursuits, REI, BSF, BSSEF, BIF, Summit Motorsports, Jack Creek Preserve, Beartooth Mountain Guides, Idaho Dept Rec, and more.

FINANCES OF THE GNFAC

The Custer Gallatin National Forest provided the Avalanche Center with 53% of its funding to cover salaries, benefits, travel, vehicles, computers, and office space. We rely on our long-term supporters, Friends of the Avalanche Center and Montana Fish, Wildlife & Parks, for the remaining 47%.

FRIENDS OF THE GNFAC

The Friends of the Avalanche Center is a nonprofit organization whose mission is simple and focused:

The Friends of GNFAC supports the Gallatin National Forest Avalanche Center in providing quality avalanche education and awareness programs to the greater Gallatin community and all backcountry users in southwest Montana.

Their support falls into 3 core areas:

1. Direct support of the GNFAC,
2. Avalanche Education Program,
3. SnowPilot (funded through a restricted donation).

The Friends cover expenses related to the avalanche education program, as well



as administrative, snowmobile, weather station and website costs. The Friends is run by a Board of Directors, all volunteers, with two paid staff: an Education Coordinator (Shannon Regan) and Treasurer (Allyson Fauver).

The Friends were founded in 1992 and have donated over \$1,408,168 to the operation of the GNFAC. This year their total contribution was \$158,252. This total reflects spending \$112,840 for avalanche education, \$45,412 for direct GNFAC support and \$2,317 for SnowPilot maintenance. Almost all monies came from local businesses and individuals in southwest Montana with the following long term, recurring support:

- 24th Annual Powder Blast (\$64,422)
- Yellowstone Club Community Foundation (\$10,000)
- 21st Annual King and Queen of the Ridge at Bridger Bowl (\$23,438)

BOARD OF DIRECTORS

Angie Wiekert (President), Laura Ryan (Vice President), Leah Knickerbocker (Secretary).

A massive thanks goes to the previous board: Jeannie Wall (President) Ben Nobel, Mark Greeno, Dawn Brown and Tyler Allen.

SNOWMOBILES

This winter Yamaha loaned us 4 snowmobiles, 2 from Basecamp Gallatin and 2 from Alpine Yamaha in Livingston. Two of them were used in Cooke City and the other 2 were trailered in Bozeman. These loaners were essential to our ability to gather snowpack data in popular riding areas. Sleds are an expensive part of our operation and having Yamaha support us was critical.

AVALANCHE INTERN

This winter Zach Peterson was our intern. He was our primary field partner on 42 days, taught for the FOAC, and helped us post all the daily observations, pictures, videos and snowpits. Zach was an asset as intern and we relied on him as our 5th team member.

FIELD VOLUNTEERS/OBSERVERS

We do not go in the field solo and it's not always possible for us to partner with each other, so we rely on a team of skilled volunteers to help. Thirty-two volunteers accompanied us on 53 field days: Emily Allison, Kevin Allred, Ryan Arnold, Todd Barber, Maddie Beck, Karl Birkeland, Haylee Darby, Nata de Leeuw, Travis Hansen, Kirk Dewey, Chris Ennis, Nina Hance, Jerry Johnson, Claire

SINCE 1992 THE
FRIENDS OF THE
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Kleese, Aaron Lind, Josh Lipkowitz, Sam Lowe, Jordan Mancey, Kyle Marvinney, Lawson McClain, Tyler O’Leary, Drew Pogge, Paul Puettman, Shannon Regan, Chris Robinson, Brandon Schleicher, Jordan Slaughter, Jed Weingarten, Liz Welles, Rusty Willis, Ben Zavora, and Matt Zia.

We also rely on folks emailing their personal field observations, stability test results and snowpits. The accuracy of our forecasts is a direct reflection of their detailed and regular reports. We owe a special thanks to Big Sky and Bridger Bowl Ski Patrols for their daily observations as well as Beartooth Powder Guides and Yellowstone Ski Tours.

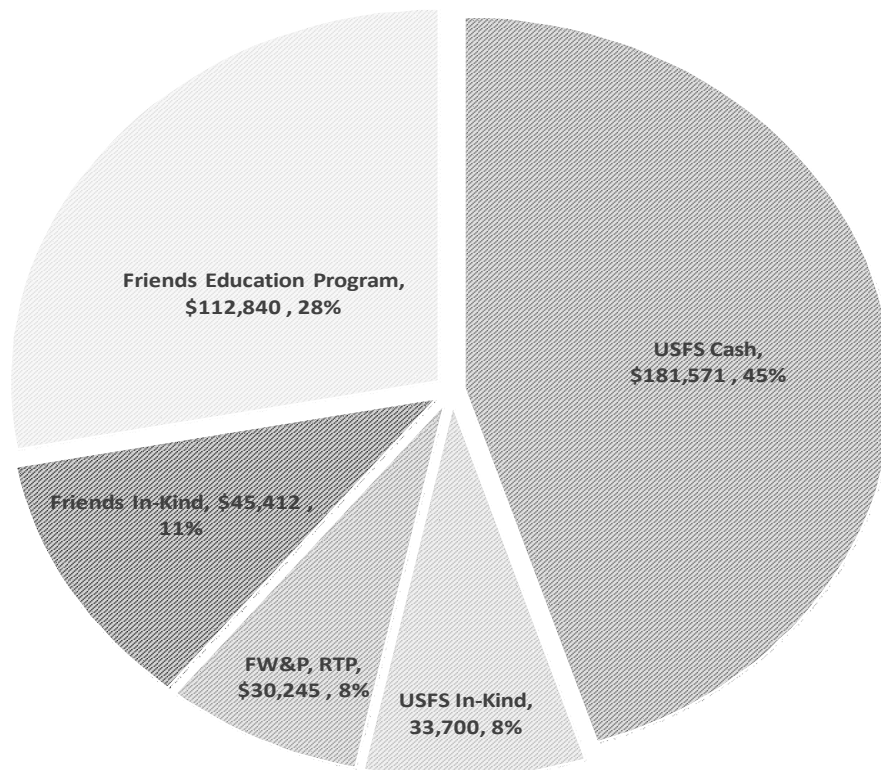
32 VOLUNTEERS
ACCOMPANIED
US ON 53 FIELD
DAYS .



Total Costs

Custer Gallatin National Forest (salaries/benefits)	\$181,571
◆ CGNF In-Kind (vehicles, office, etc)	\$33,700
Montana FW&P Rec Trails Program (salaries)	\$30,245
Friends of the Avalanche Center: Education program	\$112,840
Friends of the Avalanche Center: Direct Support	\$45,412
Friends of the Avalanche Center: SnowPilot	\$2,317
Total Costs	\$406,085 (100%)
<i>CGNF Contribution</i>	<i>\$215,271(53%)</i>
<i>Outside Contributions (non federal government)</i>	<i>\$190,814 (47%)</i>

TOTAL COSTS



GNFAC SEASON SNOWPACK SUMMARY 2023-24

by Alex Marienthal

The snowpack was historically low from when we started forecasts on December 7th through the beginning of February. We had long dry spells interrupted by a couple “storm cycles”. Snowfall was minimal with 1-2” of SWE over a week in December, and 2-4” of SWE over 2-3 weeks in January. That was enough to create a slab and widespread avalanche activity.



Surface hoar grew prior to December’s snowfall, and daily from the last days of December into the first week of the New Year. The buried surface hoar was the biggest I, or maybe any of us have seen, standing 2-3cm tall.

Large surface hoar crystals that were buried in early January.

During some previous seasons I have seen surface hoar grow and get buried, but it has never been as widespread as this season. I

hypothesize, persistent high pressure prevented normal, strong Montana winds and allowed widespread surface hoar to grow and survive in starting zones before being buried. Additionally, surface hoar and other weak layers formed during the shortest days of the year with many clear, long nights. This minimized sun exposure and warmth and promoted weak layer growth and survival on many slopes.



Multiple layers of buried surface hoar from early January produced avalanches all season.



“If the surface hoar doesn’t get you, then the facets will.” With a snowpack 2-3 feet deep at most, surface hoar formation was not independent of other weak layers growing during cold, clear nights and days. Facets and depth hoar formed on all slopes. Below the surface hoar there were weak facets, so if surface hoar didn’t exist on a slope, other very weak snow did.

The widespread distribution of various weak layers led to widespread instability when snow fell in mid-January. Throughout our forecast area we had reports of avalanches and large collapses every day for three weeks. Many avalanches were triggered remotely, by us and public backcountry users. Widespread remote triggered activity is uncommon here in my experience. Every early season with persistent weak layers I see regular reports of remote triggers from our neighbors in Idaho, Utah, Colorado and Wyoming, while we get left out. This January was like no other with almost every slope easily avalanching, and many triggered remotely.

Danger was considerable to high for most of January, even when there was minimal or no new snow. Natural avalanches didn’t seem likely on many days, while human-triggered avalanches were likely to very likely. Despite naturals being less likely, there were still natural avalanches on days that had minimal or no new snow or wind-loading.



Avalanche we triggered from the flat ridge above as we walked towards the slope in Taylor Fork on

At the end of January, Doug wrote, *“This year is unique in my 29 years of avalanche forecasting in southwest Montana. Large avalanches are being triggered from hundreds of feet away long after the most recent snowfall. Even a few inches of new snow are causing us to elevate the danger. This is not like other seasons, and it’s making our entire forecasting team nervous. We are recalibrating our risk and notching back our travel plans due to a great deal of uncertainty about what it will take for things to become more stable.”*



Riders triggered this avalanche from the flats near where the photo is taken, near Big Sky on February 17.

In February, snowfall picked up and the weak snowpack continued to produce large, easily triggered avalanches with any new snow. Remote triggered avalanches continued and became larger by the week. We saw large avalanches in places we haven’t seen slides before, and some of the largest avalanches we have seen in paths that we see slide often (paths that typically slide every year or multiple times per year). From January 8 to March 8 the danger was rated Considerable or High every day in the southern ranges of the forecast area.

Avalanches on persistent weak layers generally became larger while slowly becoming less likely through March. We continued to record natural and human-triggered deep slab avalanches in March that showed impressively wide propagation characteristic of this season’s weak layer. In late March a pair of skiers triggered an avalanche while touring up a slope in Hyalite. One of the pair



was caught and required a helicopter rescue due to a serious leg injury. The lingering threat of deep avalanches was mentioned in the forecast into April.

Above freezing temperatures and wet snow avalanches made an appearance in mid-March and were the main character at the start of April. We ended daily forecasts on April 14 with Considerable to High danger for wet snow avalanches.

Fortunately (for our snowpack and rivers), we received steady spring storms from late April until mid-June, along with a few reports of continued avalanche activity. On June 1 on Beartooth Pass (outside our advisory area) there was a human triggered avalanche involving layers of recent new snow, everyone was ok. On June 10 near Cooke City we saw the crown of a very large R4/5-D4 wet slab, 10-20' deep and around 2,000' wide. It likely propagated on the early season persistent weak layers, and occurred on a north aspect at 10,000', likely after 4-5 days of above freezing temperatures at that elevation followed by rain.

Throughout the season there were an average number of close calls or incidents compared to previous years. This winter we had 46 incidents reported which resulted in 16 people caught or carried, 9 partial burials and 3 injuries. Despite a historically scary snowpack, we are thankful there were zero avalanche fatalities in our forecast area.



This large avalanche ran in a spot that we haven't seen slide, adjacent to a common skintrack at Bacon Rind, on March 2.



A snowmobiler triggered this huge avalanche on Henderson Mtn. near Cooke City on March 7.



Natural wet slab avalanche south of Cooke City that happened on or within a couple days of June 10 .

US Avalanche Fatalities
2023-2024 SEASON

16 US fatalities

*Compiled by Colorado Avalanche Information Center

Activity	Killed
Skier †	7
Snowboarder †	1
Snowmobiler	3
Snowshoer/Climber/Hiker	4
Other	1
Total	16
† Inbounds skier/boarder	1



<u>Date</u> ▲	<u>State</u>	<u>Location</u>	<u>Description</u>	<u>Killed</u>
05/10	ID	Donaldson Peak, Lost River Range	1 backcountry skier caught, fully buried, and killed	1
05/09	UT	Big Willow Aprons, northeast of Lone Peak	3 backcountry skiers caught, 1 partially buried and injured, 2 buried and killed	2
03/29	WA	Mount St Helens	1 backcountry snowboarder caught and killed	1
03/12	MT	West Fork Camp Creek near Lost Trail Pass, Bitterroot Mountains	1 backcountry skier caught, buried, and killed	1
03/06	OR	Gunsight Mountain, Elkhorn Mountains	1 backcountry skier caught, not buried, and killed	1
03/01	WA	Darland Mountain, Ahtanum Meadows	1 snowmobiler caught, buried, and killed	1
03/01	ID	Gunsight Peak, McCormick Creek, Selkirk Mountains	1 snowmobilers caught, buried, and killed	1
02/13	AK	John Mountain, Kenai Mountains	3 backcountry skiers caught, 2 injured, 1 killed	1
02/11	CO	Anthracite Range, east of Ohio Peak	1 backcountry skier caught, buried, and killed	1
02/09	WY	West Fork of Haskins Creek, west of Battle Pass	2 snowmobilers caught, 1 partially buried-critical and killed	1
02/02	AK	Lake George, Chugach Mountains	1 heliskier caught and killed	1
01/22	CO	Waterfall Canyon, south of Ophir	1 backcountry snowboarder caught, partially buried, and killed	1
01/14	WY	Little Poudre Mountain, Prater Canyon	1 backcountry skier caught, buried and killed	1
01/11	ID	Stevens Peak, Lone Lake Drainage, Bitterroot Mountains	2 backcountry skiers caught, 1 injured, 1 partially buried-critical and killed	1
01/10	CA	KT-22, Sierra Nevada	1 rider injured, 1 killed	1

† Estimated

A FAREWELL LETTER FROM DOUG CHABOT

Dear Fellow Aficionados of the backcountry,

My career as an avalanche forecaster at the Gallatin National Forest Avalanche Center is coming to a close. After a 29-year run (24 as the director) it's time to say good-bye. Avalanche forecasting allowed me to mesh two things I value: working in the outdoors and public service.

When I was 17, I skied for the first time on a school trip at Great Gorge/Vernon Valley ski area in NY. I wore a cotton hoody and denim jeans heavily sprayed with Scotch Guard. My lesson was on a bunny slope with a rope tow, surrounded by six-year-olds. I was uncoordinated and not athletic and promptly fell and broke my thumb. "Never again," I thought. Skiing had to be the dumbest sport in the world. Luckily, I was wrong. The arc of my skiing career went from learning to telemark in college with knotted bandanas as poor-man skins, to waiting tables at Big Sky so I could get a ski pass and do lap after lap on a chair lift, slowly improving. I then became the assistant manager of Jimmy B's bar at Bridger Bowl for two years while I took downhill ski lessons so I could be a ski patroller. I pleaded my case to the ski patrol director who finally relented and gave me a job in 1990. Being the worst skier on patrol meant I could only get better, which I did while still holding onto my unofficial "worst-skier" title. In 1995 the director of the GNFAC, Karl Birkeland, asked if I wanted to fill in as an avalanche forecaster while he went to graduate school. Once my foot was in the door, there was no getting it out, and in 2000, when he moved on, I became the director.

My work at the GNFAC was never a solo endeavor. GNFAC is a team of competent people. I have been fortunate to work with some of the best in the industry who trained and mentored me and patiently stood by as I flailed. And of course, YOU, lovers of winter backcountry were always my audience. Thank you for listening and learning.

When I was hired, the newest technology still required looking at a small black and white computer screen through a magnifying glass and counting isobar lines to predict snow storms. The tools for avalanche forecasting have changed since then, but the reasons people die have not. The inability to identify avalanche terrain, laziness to determine snow stability, poor rescue skills and traveling without someone watching you are all too common themes in accidents. My job has been to warn, inform and teach people to make weighty decisions. Even as a professional, I am not immune to bad decisions and consequences. I have lost close friends in the mountains, while I was graced by luck at critical times. In my 29-year career at the GNFAC, 54 people have died in avalanches in southwest Montana. That's a big number. I've tried to keep this number down and I wish it was smaller. Each one was a person with dreams, aspirations and



family members who loved them. Some I knew personally and a few I dug out with my own hands. It's impossible to know how many were spared because of my work, but they are out there, and knowing that brings me solace.

My seasonal career welded me to Bozeman from October to mid-April for most of my adult life. I am excited for that to change. I want to ski outside Montana, climb in the desert, surf mid-winter and travel. Lots of travel. The work I now do in the summer I hope to enjoy year-round: climbing guide; avalanche consultant in Central Asia; and getting girls to school in northern Pakistan through the non-profit I co-founded--Iqra Fund. My body has been beat up but is still working and I hope to continue making a difference.

Thank you for making my time at the GNFAAC meaningful, fulfilling and valued. Keep on supporting the GNFAAC.

With deep gratitude and appreciation,

Doug Chabot

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Gallatin National Forest Avalanche Center

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